Météo France

User guide

OpenDJ installation automation scripts

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1   Introduction

This document describes the procedure for downloading sources, compiling and packaging the open source software OpenDJ.

OpenDJ is a ldapv3 protocol implementation written in Java.

It is maintained and developed by the company ForgeRock as an OpenSource software.

For more information regarding this product, you can refer to the following documentation :

- https://en.wikipedia.org/wiki/OpenDJ

- http://opendj.forgerock.org/

2 Prerequisites

2.1 Repository

The repository is the official ForgeRock GitHub repository. It is available at the following URL:

https://github.com/OpenRock/OpenDJ

This repository is a mirror of the repository hosted by ForgeRock:

https://stash.forgerock.org/projects/OPENDJ/repos/opendj

2.2 Dependencies

Before downloading the sources, their compilation and the packaging of the software, your server needs the following dependencies :

```
# yum install git
# yum install wget
# yum install rpmdevtools
```

Depending on your operating system, you can add the « epel » repository like this:

- CentOS 6.*

```
# wget http://download.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
# rpm -ivh epel-release-6-8.noarch.rpm
```

- CentOS 7

```
# wget http://download.fedoraproject.org/pub/epel/7/x86_64/epel-release-7.5.noarch.rpm
# rpm -ivh epel-release-7.5.noarch.rpm
```

Finally you can install java :

```
# yum install java-1.7.0-openjdk-devel
```

2.3 Scripts installation

Scripts can be untarred in any folder.

```
tar zxvf opendj-scripts.tar.gz
```

3   Detailed procedure

3.1   Configuration

3.1.1   Script configuration

This script are configured by the parameters in the file `openam-config`. It must be setup in order to match the target environment.

```
GIT=/usr/bin/git                              #GIT PATH variable
REPO=https://github.com/OpenRock/OpenDJ.git    #repository location
TAG=2.6.0                                      #tag/version OpenDJ repository
```

3.1.2   Packaging configuration

The packaging process relies on rpm tooling that is configured in the file `openam.spec`. The file looks like this:

```
Name:          OpenDJ
Version:       2.6.0
Release:       1%{?dist}
Summary:       OpenDJ packaging test

Group:         java
License:       GPL
URL:           http://opendj.forgerock.org/
Source0:       OpenDJ.tar.gz

BuildRequires: java-1.7.0-openjdk-devel
Requires:      java-1.7.0-openjdk-devel

%description
Simple rpm package using the build.sh script from the sources of OpenDJ

%prep
%setup -q -n OpenDJ

%build
./build.sh

%install
rm -rf $RPM_BUILD_ROOT
mkdir -p $RPM_BUILD_ROOT/root
cp -r %{_builddir}/OpenDJ/build/package/OpenDJ-2.6.0 $RPM_BUILD_ROOT/root

%clean
rm -rf $RPM_BUILD_ROOT

%files
%defattr(-,root,root,-)
%doc
%config(noreplace) /root/OpenDJ-2.6.0/*

%changelog
```

The script will put this file into the directory : **$HOME/rpmbuild/SPECS/**

> As you can see on the .spec file, the directory containing OpenDJ software will be installed in **/root**. You can modify this path in the .spec file by changing the fields written in red.

3.2   Sources download

To download the sources, we launch the script :

```
./opendj-00-download.sh
```

The script performs 4 steps :

- Step 00 : Downloading sources from the URL written on the REPO variable.

- Step 01 : `git checkout $TAG`.

- Step 02 : `git branch -D`.

- Step 03 : `git checkout -b master`.

We use the return value of Git in order to know if a step has succeeded or failed.

If anything happens (unknown tag or wrong URL) it will stop and let you know where if has failed.

3.3   Sources compilation

Once the sources have been downloaded, we can compile them with the command :

```
./opendj-01-build.sh
```

It will simply execute the script **build.sh** located in the sources, then copy the directory with the compiled software in folder $HOME.

> The repository we have downloaded contains every part of a fully capable OpenDJ server for Microsoft, Apple and Linux Operating Systems. The compilation script only covers Linux plat-form.

3.4   Packaging

> Note : this scripts is based on the sources downloaded with **opendj-00-download.sh** script, the compilation will happen during the packaging process, and thus **opendj-01-build.sh** is not used in this part.

The following command will build your package :

```
./opendj-02-package.sh
```

The created .rpm file is available in the directory **$HOME/rpmbuild/RPMS/x86_64/**

3.5   All in one

This script will do every steps described above:

```
./opendj-all.sh
```

3.6   Additional notes

To install your package, execute the following command :

```
# rpm -i name-of-package.rpm
```

To uninstall it just do:

```
# rpm -e name-of-package
```